Progress in CARDIOVASCULAR DISEASES

EDMUND H. SONNENBLICK, MD, *Editor*
MICHAEL LESCH, MD, *Co-Editor*
Charles K. Friedberg, MD, *Founding Editor*

VOLUME XXVII, 1984–1985

No 1 (July/August)

Atherosclerosis Update. VI.

Treatment of Common Lipoprotein Disorders ..... *W. Virgil Brown, Ira J. Goldberg, and Henry N. Ginsberg* 1

Special Article in Three Parts

Digitalis Glycosides: Mechanisms and Manifestations of Toxicity, Part III
Thomas W. Smith, Elliott M. Antman, Peter L. Friedman, Charles M. Blatt, and James D. Marsh 21

Special Article

Principles of Electrical Testing for Analysis of Ventricular Endocardial Pacing Leads
Debra Ann Angello 57

No 2 (September/October)

Cardiomyopathy Symposium. I.

Classification and Natural History of Primary Myocardial Disease ..... *Walter H. Abelmann* 73

Ischemic Cardiomyopathy ..... *George A. Pantely and J. David Bristow* 95

Evaluation of Myocardial Function in Cardiomyopathic States .....
William H. Gaasch and Michael R. Zile 115

Mitral Valve Prolapse: A Cardiomyopathic State?
Michael H. Crawford and Robert A. O'Rourke 133

No 3 (November/December)

Cardiomyopathy Update. II.

Alcoholic Cardiomyopathy ..... *Timothy J. Regan* 141

Role of Cardiac Biopsy in the Diagnosis and Management of Cardiac Disease
Robert E. Fowles and Jay W. Mason 153

Radiation-Induced Heart Disease: An Update ..... *J. Robert Stewart and Luis F. Fajardo* 173

Cardiotoxicity of Antitumor Agents ..... *Niki E. Kantrowitz and Michael R. Bristow* 195

Special Article

Cardiac Receptors: Their Function in Health and Disease ..... *John C. Longhurst* 201

No 4 (January/February)

Cardiomyopathy Update. III.

Peripartum Cardiomyopathy ..... *Desmond G. Julian and Paul Szekely* 223

Relation Between Eosinophilia and Endomyocardial Disease
Eckhardt G. J. Olsen and Christopher J. F. Spry 241

Diabetic Cardiomyopathy ..... *Frederick S. Fein and Edmund H. Sonnenblick* 255

Special Article
Normal and Abnormal Heart Rate Responses to Exercise
H. Kirk Hammond and Victor F. Froelicher 271

No 5 (March/April)

Cardiomyopathy Update. IV.

Cardiac Adaptations to Chronic Exercise ..... *Thomas F. Schaible and James Scheuer* 297

The Cardiomyopathy of Obesity ..... *James K. Alexander* 325

Special Article
Beta Blockade During and After Myocardial Infarction: An Overview of the Randomized Trials
Salim Yusuf, Richard Peto, John Lewis, Rory Collins, and Peter Sleight 335

No 6 (May/June)

Cardiomyopathy Update. V.

Coxsackievirus Myocarditis—With Special Reference to Acute and Chronic Effects
Milagros P. Reyes and A. Martin Lerner 373

The Pathogenesis of Clinical and Experimental Congestive Cardiomyopathies: Recent Concepts
Steven M. Factor and Edmund H. Sonnenblick 395

Special Articles
Cardiovascular Manifestations of Systemic Lupus Erythematosus: Current Perspective
Azam Ansari, Paul H. Larson, and Henry D. Bates 421

The Cardiovascular Actions of Morphine and the Endogenous Opioid Peptides
Michael W. Johnson, William E. Mitch, and Christopher S. Wilcox 435

Annual Indexes 451

GERIATRICPROOF.

GERIATRIC PROVEN.

For elderly patients with angina,* the transdermal nitroglycerin patch on the left can be as difficult to open as a childproof cap.

Nitro-Dur is easier to open, easier to apply. Its size is comfortable to handle. Its backing is easy to peel off from any corner. And its application is simple—no continual pressure is needed. Nitro-Dur was designed to fit comfortably into the lives of angina patients—particularly the elderly.

No wonder it has won a place so close to so many hearts.

Symptoms of hypotension may be due to overdosage. If hypotension occurs, the dosage should be reduced. In terminating treatment, the dosage must be gradually reduced over a 4- to 6-week period.

*All transdermal nitroglycerin products are being marketed pending final evaluation of effectiveness by the FDA.

Nitro-Dur®
(nitroglycerin)
Transdermal Infusion System
Practical not pretty.

See next page for brief summary of prescribing information.

Nitro-Dur
(nitroglycerin)
Transdermal Infusion System

CLINICAL PHARMACOLOGY: When the Nitro-Dur system is applied to the skin, nitroglycerin is absorbed continuously through the skin into the systemic circulation. This results in active drug reaching the target organs (heart, extremities) before deactivation by the liver. Nitroglycerin is a smooth muscle relaxant with vascular effects manifested predominantly by venous dilation and pooling. The major beneficial effect of nitroglycerin in angina pectoris is a reduction in myocardial oxygen consumption secondary to vascular smooth muscle relaxation with resultant reduction in cardiac preload and afterload. In recent years there has been an increasing recognition of a direct vasodilator effect of nitroglycerin on the coronary vessels.

In a bioavailability study using healthy volunteers,[1] transdermal absorption of nitroglycerin from Nitro-Dur achieved steady state venous plasma levels and maintained these levels for 24 hours. Detectable plasma levels were attained within 30 minutes after application of the system and were still detectable 30 minutes after removal of the system. Precise definition of "therapeutic plasma level" is not known at this time. The amount of nitroglycerin released (2.5 mg, 5 mg, 7.5 mg, 10 mg or 15 mg per 24 hours) represents the mean release rate of nitroglycerin from the system as determined from healthy volunteers, and hence, the amount potentially available for absorption through the skin. Absorption will vary among individuals.

INDICATIONS AND USAGE: This drug product has been conditionally approved by the FDA for the prevention and treatment of angina pectoris due to coronary artery disease. The conditional approval reflects a determination that the drug may be marketed while further investigation of its effectiveness is undertaken. A final evaluation of the effectiveness of the product will be announced by the FDA.

CONTRAINDICATIONS: Intolerance of organic nitrate drugs, marked anemia.

WARNINGS: The Nitro-Dur system should be used under careful clinical and/or hemodynamic monitoring in patients with acute myocardial infarction or congestive heart failure.

In terminating treatment of anginal patients, both the dosage and frequency of application must be gradually reduced over a period of 4 to 6 weeks in order to prevent sudden withdrawal reactions, which are characteristic of all vasodilators in the nitroglycerin class.

PRECAUTIONS: Symptoms of hypotension, such as faintness, weakness or dizziness, particularly orthostatic hypotension, may be due to overdosage. If during the course of treatment these symptoms occur, the dosage should be reduced or use of the product discontinued.

Nitro-Dur is not intended for use in treatment of acute anginal attacks. For this purpose, occasional use of sublingual nitroglycerin may be necessary.

Pregnancy: Pregnancy Category C. Animal reproduction studies have not been conducted with Nitro-Dur. It is also not known whether nitroglycerin can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nitroglycerin should be given to a pregnant woman only if clearly needed.

Nursing Mothers: It is not known whether nitroglycerin is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Nitro-Dur is administered to a nursing woman.

ADVERSE REACTIONS: Transient headache is the most common side effect, especially when higher doses of the drug are administered. Headaches should be treated with mild analgesics while continuing Nitro-Dur therapy. If headache persists, the Nitro-Dur dosage should be reduced or use of the product discontinued. Adverse reactions reported less frequently include hypotension, increased heart rate, faintness, flushing, dizziness, nausea, vomiting, and dermatitis. Except for dermatitis, these symptoms are attributed to the pharmacologic effects of nitroglycerin. However, they may be symptoms of overdosage. When they persist, the Nitro-Dur dosage should be reduced or use of the product discontinued.

STORAGE CONDITIONS: Store at controlled room temperature 15-30°C (59-86°F). Do not refrigerate.

HOW SUPPLIED: Nitro-Dur Transdermal Infusion System, 2.5 mg/24 hrs (5cm²), 5 mg/24 hrs (10cm²), 7.5 mg/24 hrs (15cm²), 10 mg/24 hrs (20cm²) and 15 mg/24 hrs (30cm²), is available in unit dose packages of 28 and hospital unit dose packages of 100.

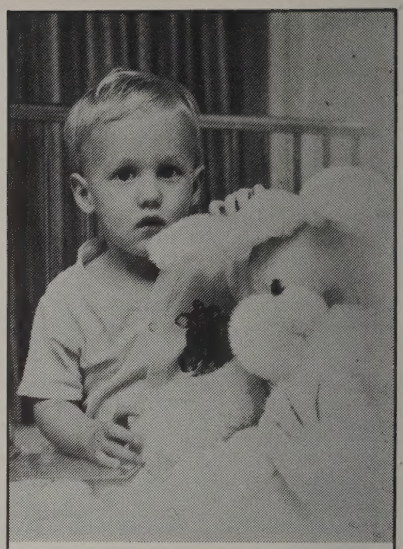
CAUTION: Federal law prohibits dispensing without prescription.

For complete prescribing information, please see package insert.

[1]Data on file: Key Pharmaceuticals, Inc. Revised 11/84

KEY PHARMACEUTICALS, INC.
Miami, Florida 33269-0670
World leader in drug delivery systems.

ND-1387R



Precious Life

Life is a precious gift.

Most people never realize the value of life until faced with death. For children with cancer or other rare childhood diseases, this lesson comes early — too early. Before they ever learn to live, some must learn to die.

While many children lose their battle against these dread diseases, thousands more survive. Thanks to the staff at St. Jude Hospital and their life-saving research.

Twenty years ago, children diagnosed with leukemia were offered little hope. Today, because of research, childhood leukemia is considered curable.

St. Jude stands on the threshold of a dream — that someday no child will lose his life to catastrophic illness. But there is still much work to be done, more diseases to conquer.

You can help make this dream a reality by sending your tax-deductible gift to St. Jude, 505 N. Parkway, Memphis, TN 38105.

Give the gift of life.

Danny Thomas, Founder
ST. JUDE CHILDREN'S RESEARCH HOSPITAL